



# MAJOR SOURCE OPERATING PERMIT

**PERMITTEE:** GLOBE METALLURGICAL

FACILITY NAME: GLOBE METALLURGICAL

FACILITY/PERMIT NO.: 104-0001

LOCATION: SELMA, ALABAMA

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, as amended, <u>Ala. Code</u> 1975, §§22-28-1 to 22-28-23 (2006 Rplc. Vol. and 2007 Cum. Supp.) (the "AAPCA") and the Alabama Environmental Management Act, as amended, <u>Ala. Code</u> 1975, §§22-22A-1 to 22-22A-15, (2006 Rplc. Vol. and 2007 Cum. Supp.) and rules and regulations adopted thereunder, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

Pursuant to the Clean Air Act of 1990, all conditions of this permit are federally enforceable by EPA, the Alabama Department of Environmental Management, and citizens in general. Those provisions which are not required under the Clean Air Act of 1990 are considered to be state permit provisions and are not federally enforceable by EPA and citizens in general. Those provisions are contained in separate sections of this permit.

**Issuance Date:** TBD

Effective Date: TBD

**Expiration Date:** TBD

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Fed	erally Enforc	Regulations	
1.	Transfer		
	or otherwis	t is not transferable, whether by operation of law se, either from one location to another, from one quipment to another, or from one person to accept as provided in Rule 335-3-1613(1)(a)5.	Rule 335-3-1602(6)
2.	Renewals		
	six (6) mo	tion for permit renewal shall be submitted at least on this, but not more than eighteen (18) months, date of expiration of this permit.	Rule 335-3-1612(2)
	to operate and comp	for which this permit is issued shall lose its right upon the expiration of this permit unless a timely lete renewal application has been submitted time constraints listed in the previous paragraph.	
3.	Severabilit	ry Clause	
	and if any clause, or invalid or jurisdiction invalidate confined is subparagrathat shall	ions of this permit are declared to be severable section, paragraph, subparagraph, subdivision, phrase of this permit shall be adjudged to be unconstitutional by any court of competent a, the judgment shall not affect, impair, or the remainder of this permit, but shall be an its operation to the section, paragraph, aph, subdivisions, clause, or phrase of this permit be directly involved in the controversy in which ment shall have been rendered.	Rule 335-3-1605(e)
4.	Complianc	<u>ee</u>	
	ADE perm of 1 resu limit reiss	permittee shall comply with all conditions of M Admin. Code 335-3. Noncompliance with this nit will constitute a violation of the Clean Air Act 990 and ADEM Admin. Code 335-3 and may lt in an enforcement action; including but not ted to, permit termination, revocation and suance, or modification; or denial of a permit wal application by the permittee.	Rule 335-3-1605(f)
	enfo cond	permittee shall not use as a defense in an recement action that maintaining compliance with litions of this permit would have required halting educing the permitted activity.	Rule 335-3-1605(g)

Fed	erally Enforceable Provisos	Regulations
5.	<u>Termination for Cause</u>	
	This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance will not stay any permit condition.	Rule 335-3-1605(h)
5.	Property Rights	
	The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.	Rule 335-3-1605(i)
7.	Submission of Information	
	The permittee must submit to the Department, within 30 days or for such other reasonable time as the Department may set, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon receiving a specific request, the permittee shall also furnish to the Department copies of records required to be kept by this permit.	Rule 335-3-1605(j)
8.	Economic Incentives, Marketable Permits, and Emissions Trading	
	No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.	Rule 335-3-1605(k)
9.	Certification of Truth, Accuracy, and Completeness:	
	Any application form, report, test data, monitoring data, or compliance certification submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.	Rule 335-3-1607(a)

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10.	Inspe	ection and Entry		
	may 1 repre	presentation of credentials and other documents as be required by law, the permittee shall allow authorized sentatives of the Alabama Department of conmental Management and EPA to conduct the ring:	Rule 335-3-1607(b)	
	(a)	Enter upon the permittee's premises where a source is located or emissions-related activity is conducted, or where records must be kept pursuant to the conditions of this permit;		
	(b)	Review and/or copy, at reasonable times, any records that must be kept pursuant to the conditions of this permit;		
	(c)	Inspect, at reasonable times, this facility's equipment (including monitoring equipment and air pollution control equipment), practices, or operations regulated or required pursuant to this permit;		
	(d)	Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.		
11.	Com	pliance Provisions		
	(a)	The permittee shall continue to comply with the applicable requirements with which the company has certified that it is already in compliance.	Rule 335-3-1607(c)	
	(b)	The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.		
12.	Com	pliance Certification		
		mpliance certification shall be submitted annually a 60 days of the anniversary date of issuance of this it.	Rule 335-3-1607(e)	
	(a)	The compliance certification shall include the following:		
		(1) The identification of each term or condition of this permit that is the basis of the certification;		
		(2) The compliance status;		

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	(3) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with Rule 335-3-1605(c) (Monitoring and Recording Keeping Requirements);		
	(4) Whether the method(s) or other means used to assure compliance provided continuous or intermittent data;		
	(5) Such other facts as the Department may require to determine the compliance status of the source;		
(b)	The compliance certification shall be submitted to :		
Ala	pama Department of Environmental Management Air Division P.O. Box 301463 Montgomery, AL 36130-1463		
	and to:		
	Air and EPCRA Enforcement Branch EPA Region IV 61 Forsyth Street, SW Atlanta, GA 30303		
Reo	pening for Cause		
	er any of the following circumstances, this permit will be ened prior to the expiration of the permit:	Rule 335-3-1613(5)	
(a)	Additional applicable requirements under the Clean Air Act of 1990 become applicable to the permittee with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire.		
(b)	Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit.		

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	(c)	The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.	
	(d)	The Administrator or the Department determines that this permit must be revised or revoked to assure compliance with the applicable requirements.	
4.	<u>Addi</u>	tional Rules and Regulations	
	exist Rule	permit is issued on the basis of Rules and Regulations ing on the date of issuance. In the event additional s and Regulations are adopted, it shall be the permit er's responsibility to comply with such rules.	§22-28-16(d), <u>Code of</u> <u>Alabama 1975</u> , as amended
5.	<u>Equi</u>	pment Maintenance or Breakdown	
	(a)	In case of shutdown of air pollution control equipment for scheduled maintenance, the intent to shut down shall be reported to the Department at least 24 hours prior to the planned shutdown, unless such shutdown is accompanied by the shutdown of the source which such equipment is intended to control. The Department shall be notified when maintenance on the air pollution control equipment is complete and the equipment is operating.	Rule 335-3-107(1),(2
		(1) Identification of the specific facility to be taken out of service as well as its location and permit number;	
		(2) The expected length of time that the air pollution control equipment will be out of service;	
		(3) The nature and quantity of emissions of air contaminants likely to occur during the shutdown period;	
		(4) Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period;	
		(5) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.	
	(b)	In the event that there is a breakdown of equipment or upset of process in such a manner as to cause, or is expected to cause, increased emissions of air	

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		stand shall work perti the b	aminants which are above an applicable dard, the person responsible for such equipment notify the Director within 24 hours or the next ring day and provide a statement giving all nent facts, including the estimated duration of breakdown. The Director will be notified when the kdown has been corrected.	
б.	<u>Ope</u>	ration	of Capture and Control Devices	
	whice oper emisting the a	th this ated at sions of above e	dution control devices and capture systems for a permit is issued shall be maintained and t all times in a manner so as to minimize the of air contaminants. Procedures for ensuring that quipment is properly operated and maintained so mize the emission of air contaminants shall be	§22-28-16(d), <u>Code or</u> <u>Alabama 1975</u> , as amended
7.	<u>Obn</u>	oxious	<u>Odors</u>	
	obnoverification odor	oxious ied by ous en Alaban these	it is issued with the condition that, should odors arising from the plant operations be Air Division inspectors, measures to abate the missions shall be taken upon a determination by na Department of Environmental Management measures are technically and economically	Rule 335-3-108
3.	<u>Fugi</u>	tive D	<u>ust</u>	
	(a)	emar	autions shall be taken to prevent fugitive dust nating from plant roads, grounds, stockpiles, ens, dryers, hoppers, ductwork, etc.	Rule 335-3-402
	(b)		t or haul roads and grounds will be maintained be following manner so that dust will not become brne:	
		(1)	By the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;	
		(2)	By reducing the speed of vehicular traffic to a point below that at which dust emissions are created;	
		(3)	By paving;	

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	(4)	By the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions; or	
	(5)	By any combination of the above methods which results in the prevention of dust becoming airborne from the road surface.	
Addi	tions	and Revisions	
		ications to this source shall comply with the n procedures in Rules 335-3-1613 or 335-3-16-	Rule 335-3-1613 and .14
Reco	rdkee	ping Requirements	
(a)		ords of required monitoring information of the ce shall include the following:	Rule 335-3-1605(c)(2
	(1)	The date, place, and time of all sampling or measurements;	
	(2)	The date analyses were performed;	
	(3)	The company or entity that performed the analyses;	
	(4)	The analytical techniques or methods used;	
	(5)	The results of all analyses; and	
	(6)	The operating conditions that existed at the time of sampling or measurement.	
(b)	and at le sam Sup mair reco- instr	ntion of records of all required monitoring data support information of the source for a period of east 5 years from the date of the monitoring ple, measurement, report, or application. port information includes all calibration and attenance records and all original strip-chart rdings for continuous monitoring rumentation and copies of all reports required by permit.	

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21.	Rep	orting Requirements	
	(a)	Reports to the Department of any required monitoring shall be submitted at least every 6 months. All instances of deviations from permit requirements must be clearly identified in said reports. All required reports must be certified by a responsible official consistent with Rule 335-3-1604(9).	Rule 335-3-1605(c)(3)
	(b)	Deviations from permit requirements shall be reported within 48 hours or 2 working days of such deviations, including those attributable to upset conditions as defined in the permit. The report will include the probable cause of said deviations, and any corrective actions or preventive measures that were taken.	
22.	<u>Emi</u>	ssion Testing Requirements	
	prov safet acco 40 o	n point of emission which requires testing will be ided with sampling ports, ladders, platforms, and other ty equipment to facilitate testing performed in rdance with procedures established by Part 60 of Title of the Code of Federal Regulations, as the same may be nded or revised.	Rule 335-3-105(3) and Rule 335-3-1- .04(1)
	in a subr	Air Division must be notified in writing at least 10 days advance of all emission tests to be conducted and mitted as proof of compliance with the Department's air ation control rules and regulations.	
	proc	avoid problems concerning testing methods and edures, the following shall be included with the fication letter:	
	(a)	The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.	Rule 335-3-104
	(b)	A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedures requires probe cleaning).	
	(c)	A description of the process(es) to be tested including the feed rate, any operating parameters used to	

•	Enforceable Provisos	Regulations	
	control or influence the operations, and the rated capacity.		
(d)	A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.		
own and	etest meeting may be held at the request of the source er or the Air Division. The necessity for such a meeting the required attendees will be determined on a case-by- basis.	Rule 335-3-104	
30	est reports must be submitted to the Air Division within days of the actual completion of the test unless an usion of time is specifically approved by the Air Division.		
23. <b>Pay</b>	ment of Emission Fees		
	ual emission fees shall be remitted each year according the fee schedule in ADEM Admin. Code R. 335-1-704.	Rule 335-1-704	
24. <b>Oth</b>	er Reporting and Testing Requirements		
fuel may pollı	mission of other reports regarding monitoring records, analyses, operating rates, and equipment malfunctions be required as authorized in the Department's air ation control rules and regulations. The Department require emission testing at any time.	Rule 335-3-104(1)	
25. <u><b>Titl</b>e</u>	e VI Requirements (Refrigerants)		
inclu Clas 82, and prac certi	facility having appliances or refrigeration equipment, ading air conditioning equipment, which use Class I or s II ozone-depleting substances as listed in 40 CFR Part Subpart A, Appendices A and B, shall service, repair, maintain such equipment according to the work tices , personnel certification requirements, and fied recycling and recovery equipment specified in 40 Part 82, Subpart F.	40 CRR Part 82	
Clas the	person shall knowingly vent or otherwise release any s I or Class II substance into the environment during repair, servicing, maintenance, or disposal of any device pt as provided in 40 CFR Part 82, Subpart F.		
	responsible official shall comply with all reporting and rdkeeping requirements of 40 CFR 82.166. Reports 1 be submitted to the US EPA and the Department as		

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26.	Che	mical .	Accidental Prevention Provisions			
	pres	ent in	cal listed in Table 1 of 40 CFR Part 68.130 is a process in quantities greater than the threshold sted in Table 1, then:	40 CFR Part 68		
	(a)		owner or operator shall comply with the risions in 40 CFR Part 68.			
	(b)		owner or operator shall submit one of the wing:			
		(1)	A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR Part 68 § 68.10(a) or,			
		(2)	A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan.			
27.	<u>Disp</u>	lay of	Permit			
	at th locat	e site s ted an	t shall be kept under file or on display at all times where the facility for which the permit is issued is and will make the permit readily available for by any or all persons who may request to see it.	Rule 335-3-1401(1)(d		
28.	Circumvention					
	any redu conc	device ction i eals o	shall cause or permit the installation or use of or any means which, without resulting in the in the total amount of air contaminant emitted, r dilutes any emission of air contaminant which erwise violate the Division 3 rules and regulations.	Rule 335-3-110		
29.	Visil	ole Em	nissions			
	this discluding than sour emis 40 (	perminarge in 20% ce discons general constant co	derwise specified in the Unit Specific provisos of t, any source of particulate emissions shall not more than one 6-minute average opacity greater in any 60-minute period. At no time shall any charge a 6-minute average opacity of particulate greater than 40%. Opacity will be determined by art 60, Appendix A, Method 9, unless otherwise in the Unit Specific provisos of this permit.	Rule 335-3-401(1)		
30.	<u>Fuel</u>	-Burni	ing Equipment			

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		discharge particulate emissions in excess of the emissions specified in Part 335-3-403.	
	` ,	Unless otherwise specified in the Unit Specific provisos of this permit, no fuel-burning equipment may discharge sulfur dioxide emissions in excess of the emissions specified in Part 335-3-501.	Rule 335-3-501
31.	Pro	cess Industries – General	
	this	ess otherwise specified in the Unit Specific provisos of permit, no process may discharge particulate emissions xcess of the emissions specified in Part 335-3-404.	Rule 335-3-404
32.	Ave	raging Time for Emission Limits	Rule 335-3-105
	for t	ess otherwise specified in the permit, the averaging time the emission limits listed in this permit shall be the hinal time required by the specific test method	
33.	Com	npliance Assurance Monitoring (CAM)	
	app requ emi	ditions (a) through (d) that follow are general conditions licable to emissions units that are subject to the CAM airements. Specific requirements related to each ssions unit are contained in the unit specific provisos the attached CAM appendices.	
	(a)	Operation of Approved Monitoring	40 CFR 64.7
	(1)	Commencement of operation. The owner or operator shall conduct the monitoring required under this section and detailed in the unit specific provisos and CAM appendix of this permit (if required) upon issuance of the permit, or by such later date specified in the permit pursuant to §64.6(d).	
	(2)	Proper maintenance. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.	

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operation (or shall collect data at all required intervals) at all times that the pollutant-specific	
emissions unit is operating. Data recorded during	

emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is anv sudden, infrequent, reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

- (4) Response to excursions or exceedances.
- (a) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutantspecific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary followup actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (b) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and

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		the process.	
	(5)	Documentation of need for improved monitoring. After approval of monitoring under this part, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Department and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.	
	(b) Q	uality Improvement Plan (QIP) Requirements	40 CFR 64.8
	(1)	Based on the results of a determination made under Section 33(a)(4)(b) above, the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with 40 CFR §64.6(c)(3), the permit may specify an appropriate threshold, such as an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, for requiring the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.	
	(2)	Elements of a QIP:	
an 2. Th co ev	nd have ne plan ontrol p caluatio	er or operator shall maintain a written QIP, if required, e it available for inspection. Initially shall include procedures for evaluating the performance problems and, based on the results of the performance, the owner or operator shall modify the include procedures for conducting one or more of the	

erally	Enforceable Provisos	Regulations
	(i) Improved preventive maintenance practices.	
	(ii) Process operation changes.	
	(iii) Appropriate improvements to control methods.	
	(iv) Other steps appropriate to correct control performance.	
(3)	<ul> <li>(v) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (2)(b)(i) through (iv) above).</li> <li>If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Department if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.</li> </ul>	
(4)	Following implementation of a QIP, upon any subsequent determination pursuant to Section 33(a)(4)(b) above, the Department may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:	
	<ul><li>(a) Failed to address the cause of the control device performance problems; or</li><li>(b) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.</li></ul>	
(5)	Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.	
(c) ]	Reporting and Recordkeeping Requirements	40 CFR 64.9
(1)	General reporting requirements	
	On and after the date specified in Section 33(a)(1) above by which the owner or operator must use monitoring that meets the requirements of this part, the owner or operator shall submit	

ally Enforceable Provisos	Regulations
applicable recordkeeping requirements.	
(d) Savings Provisions	40 CFR 64.10
(1) Nothing in this part shall:	
(a) Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this part shall not be used justify the approval of monitoring less stringer than the monitoring which is required under separate legal authority and are not intended establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I the Act. The purpose of this part is to require, a part of the issuance of a permit under title V the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.	n g, yy y e e o o o o o o o o o o o o o o o
(b)Restrict or abrogate the authority of the Department to impose additional or most stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operate of a source under any provision of the Actincluding but not limited to sections 114(a)(1) are 504(b), or state law, as applicable.	re or or t,
(c)Restrict or abrogate the authority of the Department to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.	er e

# Summary Page for 20 MW Submerged Arc Furnace No. 1 & Associated Tapping Operation w/ Baghouse #1 (Silicon Metal)

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

#### **Emission limitations:**

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001)	PM	The Greater of 0.99 lb/MW or Process Weight (see general proviso 31 for process weight)	Rule 335-3-404 §60.262(a)(1) Rule 335-3-10- .01(2)
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001))	CO	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001)	$\mathrm{NO}_{\mathrm{x}}$	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001)	SO <sub>2</sub>	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001)	VOC	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001))	HAPs	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001)	Opacity	(see general proviso 29)	Rule 335-3-401

# Provisos for 20 MW Submerged Arc Furnace No. 1 & Associated Tapping Operation w/ Baghouse #1 (Silicon Metal)

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-1603, "Major Source Operating Permits."	Rule 335-3-1603
2. This source is subject to the emission standard in §60.262(a)(1).	§60.262(a)(1)
	Rule 335-3-1001(2)
3. For particulate matter emissions, this source is subject to the applicable requirements of 40 CFR Part 64, "Compliance Assurance Monitoring", to include General Proviso No. 33.	40 CFR Part 64
Emission Standards	
1. Particulate matter emissions from this unit shall not exceed the greater of 0.99 lb per Megawatt-hr or the allowable as set by Rule 335-3-404.	Rule 335-3-1001(2) §60.262(a)(1) Rule 335-3-404
Compliance and Performance Test Methods and Procedures	
1. Method 5D of 40 CFR (Latest Edition) Part 60, Appendix A, or an equilivent method as approved by the Department shall be used in the determination of particulate matter emissions.	Rule 335-3-104
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.	Rule 335-3-104
Emission Monitoring	
<ol> <li>Reference the Appendix for the monitoring requirements for 40 CFR Part 64, "Compliance Assurance Monitoring".</li> </ol>	40 CFR Part 64
2. The facility shall perform a weekly visual check of the furnace building. This shall be performed by a person familiar with Method 9. If visible emissions in excess of 15% opacity are noted, and are not corrected within a period of 1 hour, then a Method 9 must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	Rule 335-3-1605(c)
3. The facility shall perform a daily inspection of the furnace	Rule 335-3-1605(c)

Fe	derally Enforceable Provisos	Regulations
	building to verify proper operation of the furnace baghouse.	
	The following activities shall be performed:	
	(a) Once per day check the furnace and tap hoods for fugitive emissions.	
	(b) Record any repairs or observed problems.	
4.	The facility shall perform a weekly inspection of the furnace baghouse to verify proper operation.	Rule 335-3-1605(c)
	The following activities shall be performed:	
	(a) The baghouse shall be inspected weekly for damaged bags, air leaks, water infiltration, caking or blinding of bags, proper cleaning function and cycling. Maintenance shall be performed as needed.	
	(b) Once per week a visual check of all hoods and ductwork.	
	(c) Record any repairs or observed problems.	
5.	The facility shall perform the following annual inspections of the main baghouse to verify proper operation.	Rule 335-3-1605(c)
	The following activities shall be performed:	
	(a) Internal inspection of structure, access doors and bags.	
	(b) Internal inspection of all hoppers.	
	(c) Record any repairs or observed problems.	
Re	cordkeeping and Reporting Requirements	
1.	The facility shall maintain a record of all inspections, to include visible observations, performed to satisfy the requirements of periodic monitoring and Compliance Assurance Monitoring. This shall include all problems observed and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-1605(c)
2.	The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-1605(c)
3.	The facility shall report any Method 9's on the furnace baghouse with a six minute average opacity over 20%. Such reports shall be made within 48 hrs of such observations.	40 CFR Part 64
		1

Federally Enforceable Provisos	Regulations
4. The facility shall maintain a record of all differential pressure readings performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	40 CFR Part 64
5. The facility shall maintain a record of all temperature readings for the baghouse performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	40 CFR Part 64

# Summary Page for 20 MW Submerged Arc Furnace No. 2 & Associated Tapping Operation w/ & Baghouse #2 (Silicon Metal)

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

#### **Emission limitations:**

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	PM	The Greater of 0.99 lb/MW or Process Weight (see general provisos for process weight)	Rule 335-3-404 §60.262(a)(1) Rule 335-3-10- .01(2)
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	CO	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	$ m NO_x$	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	$\mathrm{SO}_2$	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	VOC	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	HAPs	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	Opacity	(see general provisos)	Rule 335-3-401

# Provisos for 20 MW Submerged Arc Furnace No. 2 & Associated Tapping Operation w/ Baghouse #2 (Silicon Metal)

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-1603, "Major Source Operating Permits."	Rule 335-3-1603
2. This source is subject to the emission standard in §60.262(a)(1).	§60.262(a)(1) Rule 335-3-1001(2)
3. For particulate matter emissions, this source is subject to the applicable requirements of 40 CFR Part 64, "Compliance Assurance Monitoring", to include General Proviso No. 33.	40 CFR Part 64
Emission Standards	
1. Particulate matter emissions from this unit shall not exceed the greater of 0.99 lb per Megawatt-hr or the allowable as set by Rule 335-3-404.	Rule 335-3-1001(2) §60.262(a)(1)
	Rule 335-3-404
Compliance and Performance Test Methods and Procedures	
1. Method 5D of 40 CFR (Latest Edition) Part 60, Appendix A, or an alternative method as approved by the Department shall be used in the determination of particulate matter emissions.	Rule 335-3-104
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.	Rule 335-3-104
Emission Monitoring	
1. Reference the Appendix for the monitoring requirements for 40 CFR Part 64, "Compliance Assurance Monitoring".	40 CFR Part 64
2. The facility shall perform a weekly visual check of the furnace building. This shall be performed by a person familiar with Method 9. If visible emissions in excess of 15% opacity are noted, and are not corrected within a period of 1 hour, then a Method 9 must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	Rule 335-3-1605(c)
3. The facility shall perform a daily inspection of the furnace building to verify proper operation of the furnace baghouse.	Rule 335-3-1605(c)

Fe	ederally Enforceable Provisos	Regulations
	The following activities shall be performed:	
	(a) Once per day check the furnace and tap hoods for fugitive emissions.	
	(b) Record any repairs or observed problems.	
4.	The facility shall perform a weekly inspection of the furnace baghouse to verify proper operation.	Rule 335-3-1605(c)
	The following activities shall be performed:	
	(a) The baghouse shall be inspected weekly for damaged bags, air leaks, water infiltration, caking or blinding of bags, proper cleaning function and cycling. Maintenance shall be performed as needed.	
	(b) Once per week a visual check of all hoods and ductwork.	
	(c) Record any repairs or observed problems.	
5.	The facility shall perform the following annual inspections of the main baghouse to verify proper operation.	Rule 335-3-1605(c)
	The following activities shall be performed:	
	(a) Internal inspection of structure, access doors and bags.	
	(b) Internal inspection of all hoppers.	
	(c) Record any repairs or observed problems.	
Re	cordkeeping and Reporting Requirements	
1.	The facility shall maintain a record of all inspections, to include visible observations, performed to satisfy the requirements of periodic monitoring and Compliance Assurance Monitoring. This shall include all problems observed and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-1605(c)
2.	The facility shall maintain a record of all weekly and annual baghouse inspections to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-1605(c)
3.	The facility shall report any Method 9's on the furnace baghouse with a six minute average opacity over 20%. Such reports shall be made within 48 hrs of such observations.	40 CFR Part 64

Federally Enforceable Provisos	Regulations
4. The facility shall maintain a record of all differential pressure readings performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	40 CFR Part 64
5. The facility shall maintain a record of all temperature readings for the baghouse performed to satisfy the requirements of Compliance Assurance Monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	40 CFR Part 64

# Summary Page for Product Handling, Crushing and Screening w/ Baghouse 3 & 4 (Silicon Metal)

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

#### **Emission limitations:**

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP003	Jaw Crusher and Cone Crusher with Baghouse #3	PM	Process Weight (see general proviso 31)	Rule 335-3-404
EP003	Jaw Crusher and Cone Crusher with Baghouse #3	Opacity	(see general proviso 29)	Rule 335-3-401
EP004	Product Shakers & Screens, & Product Conveyors with Baghouse #4	PM	Process Weight (see general proviso 31)	Rule 335-3-404
EP004	Product Shakers & Screens, & Product Conveyors with Baghouse #4	Opacity	(see general proviso 29)	Rule 335-3-401

## Provisos for Product Handling, Crushing and Screening w/ Baghouse 3 & 4 (Silicon Metal)

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-1603, "Major Source Operating Permits."	Rule 335-3-1603
Emission Standards	
1. This Source is subject to no additional specific requirements other than those listed in the General Permit Provisos.	N/A
Compliance and Performance Test Methods and Procedures	
1. Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions or an alternative method as approved by the Department.	Rule 335-3-104
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.	Rule 335-3-104
Emission Monitoring	
1. The facility shall perform a visual check, once per week, of the baghouse stacks associated with these units. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and are not corrected within a period of 1 hour, then a Method 9 must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	Rule 335-3-1605(c)
2. The facility shall perform a weekly inspection of the baghouses associated with these units to verify proper operation.	Rule 335-3-1605(c)
The following activities shall be performed:	
(a) Once per week check the capture hoods associated with this permit for fugitive emissions.	
(b) Once per month check hopper, fan and cleaning cycle for proper operation.	
(c) Once per month a visual check of all hoods and ductwork.	
Record any repairs or observed problems.	
3. The facility shall perform the following annual inspections of the baghouses to verify proper operation.	Rule 335-3-1605(c)
The following activities shall be performed:	

Federally Enforceable Provisos	Regulations
(a) Internal inspection of structure, access doors and bags.	
(b) Internal inspection of all hoppers.	
Recordkeeping and Reporting Requirements	
1. The facility shall maintain a record of all inspections, to include visible observations and Method 9's, performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-1605(c)
2. The facility shall report any Method 9's with an average opacity over 20%. Such reports shall be made within 48 hrs of such observations.	Rule 335-3-1605(c)

# Summary Page for 20 MW Submerged Arc Furnace No. 1 & Associated Tapping Operation w/ Baghouse #1 (Ferromanganese and Silicomanganese)

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

#### **Emission limitations:**

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001)	PM	21.7 lbs/hr ferromanganese Or 27.2 lbs/hr silicomanganese	40 CFR §63.1652(b)(1) & §63.1652(b)(4)
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001)	PM	The Greater of 0.51 lb/MW or Process Weight (see general proviso 31 for process weight)	Rule 335-3-404 §60.262(a)(2) Rule 335-3-10- .01(2)
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001)	CO	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001)	$ m NO_x$	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001)	$SO_2$	Coke - 0.75% Sulfur by weight	Rule 335-3-14- .04 (Anti-PSD)
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001)	VOC	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 ((Baghouse #1 is EP001)	HAPs	N/A	N/A
EP001	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #1 (Baghouse #1 is EP001)	Opacity	20% for more than one six minute average	40 CFR §63.1653

# Provisos for 20 MW Submerged Arc Furnace No. 1 & Associated Tapping Operation w/ Baghouse #1 (Ferromanganese and Silicomanganese)

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-1603, "Major Source Operating Permits."	Rule 335-3-1603
2. This source is subject to the applicable requirements in 40 CFR 63 Subpart XXX, "National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese".	40 CFR 63 Subpart XXX
3. This source is subject to the emission standard in §60.262(a)(2).	§60.262(a)(2)
	Rule 335-3-1001(2)
Emission Standards	
<ol> <li>Particulate matter emissions from this unit shall not exceed:</li> <li>9.8 kg/hr (21.7 lbs/hr) when producing ferromanganese in an open furnace operating at a furnace power input of 22 MW or less</li> </ol>	40 CFR §63.1652(b)(1) & §63.1652(b)(4)
Or	
12.3 kg/hr (27.2 lbs/hr) when producing silicomanganese in an open furnace operating at a furnace power input of 25 MW or less	
2. The Permittee shall not cause emissions exiting from a shop due solely to operations of any affected submerged arc furnace, to exceed 20 percent opacity for more than one 6-minute period during any performance test, except when blowing taps, poling, and oxygen lancing of the tap hole; burndowns associated with electrode measurements; and maintenance activities associated with submerged arc furnaces and casting operations are exempt from the opacity standards specified in this section.	40 CFR §63.1653
3. The sulfur content of the coke utilized in the Submerged Arc Furnace shall not exceed $0.75\%$ by weight.	Rule 335-3-1404 (Anti-PSD)
4. Particulate matter emissions from this unit shall not exceed the	Rule 335-3-1001(2)
greater of 0.51 lb per Megawatt-hr or the allowable as set by Rul 335-3-404.	§60.262(a)(2)
	Rule 335-3-404

Federally Enforceable Provisos	Regulations
Compliance and Performance Test Methods and Procedures	
1. Method 5D of 40 CFR (Latest Edition) Part 60, Appendix A, or as equilivent method as approved by the Department shall be used in the determination of particulate matter emissions.	
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall b used in the determination of the opacity.	e Rule 335-3-104
Emission Monitoring	
1. The Permittee must observe on a daily basis for the presence of any visible emissions and conduct the following activities:	of 40 CFR §63.1657(a)(1) & §63.1657(a)(2)
(a) Daily monitoring of pressure drop across each baghouse cell or across the baghouse if it is not possible to monitor each cell individually, to ensure the pressure drop is within the normal operating range identified in the baghouse maintenance plan.	11
(b) Weekly confirmation that dust is being removed from hopper through visual inspection, or equivalent means of ensuring th proper functioning of removal mechanisms.	
(c) Daily check of the compressed air supply for pulse-je baghouses.	t
(d) An appropriate methodology for monitoring cleaning cycles t ensure proper operation.	0
(e) Monthly check of bag cleaning mechanisms for prope functioning through visual inspection or equivalent means.	r
(f) Quarterly visual check of bag tension on reverse air and shaker-type baghouses to ensure that the bags are not kinked (kneed or bent) or laying on their sides. Such checks are not required for shaker-type baghouses using self-tensionin (spring loaded) devices.	d t
(g) Quarterly confirmation of the physical integrity of th baghouse structure through visual inspection of the baghous interior for air leaks.	
(h) Semiannual inspection of fans for wear, material buildup, and corrosion through visual inspection, vibration detectors, of equivalent means.	
2. The Permittee must develop and implement corrective action procedures (as part of the maintenance plan required by 40 CFI §63.1655(b)) to be followed in the case of an observation of visible emissions from the baghouse or the indication through the periodic baghouse system inspections that the system is not operating properly. The owner or operator must initiate corrective action as soon as practicable after the occurrence of the observation or event indicating a problem.	R §63.1657(a)(4)-(6) e e t e
3. The Permittee must comply with one of the following monitorin 34	g 40 CFR §63.1657(c)

<b>Federally</b>	<b>Enforceable</b>	<b>Provisos</b>
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#### Regulations

options:

- (a) The owner or operator must check and record the control system fan motor amperes and capture system damper positions once per shift.
- (b) The owner or operator must install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood.
- (c) The owner or operator must install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the inlet of the air pollution control device and must check and record the capture system damper positions once per shift.

The selected option must be consistent with that selected during the initial performance test. Failure to maintain the appropriate capture system parameters (fan motor amperes, flow rate, and/or damper positions) establishes the need to initiate corrective action as soon as practicable after the monitoring excursion in order to minimize excess emissions.

4. The Permittee must prepare and implement a fugitive dust control plan according to 40 CFR 63.1654(a).

40 CFR §63.1654(a)

5. The Permittee must develop and implement a written maintenance plan for each air pollution control device associated with the submerged arc furnace according to 40 CFR 63.1655(b) & (c).

40 CFR §63.1655(b) & §63.1655(c)

6. The facility shall perform a visual check, once per week, of the baghouse stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and are not corrected within a period of 1 hour, then a Method 9 must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

Rule 335-3-16-.05(c)

7. The facility shall perform a weekly visual check of the furnace building. This shall be performed by a person familiar with Method 9. If visible emissions in excess of 15% opacity are noted, and are not corrected within a period of 1 hour, then a Method 9 must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

Rule 335-3-16-.05(c)

8. The facility shall perform a daily inspection of the furnace building to verify proper operation of the furnace baghouse.

Rule 335-3-16-.05(c)

The following activities shall be performed:

(a) Once per day check the furnace and tap hoods for fugitive

Fed	erally Enforceable Provisos	Regulations
	emissions.	
(	b) Record any repairs or observed problems.	
Rec	ordkeeping and Reporting Requirements	
I I I	This operation is subject to the applicable requirements of 40 CFR Part 63 Subpart XXX, "National Emission Standards for Hazardous Air Pollutants for Ferroalloy Production: Ferromanganese and Silicomanganese" to include reporting requirements in §63.1659(a) and §63.1659(b)(1,3,4,6(ii)).	40 CFR §63.1659(a) & §63.1659(b)(1,3,4,6(ii))
	The Permittee shall comply with all reporting requirements under 40 CFR §63.10 of Subpart A.	40 CFR §63.1659(a)
	The Permittee shall submit semiannual monitoring reports in accordance with 40 CFR §63.1659(b).	40 CFR §63.1659(b)
1	The Permitee shall submit periodic startup, shutdown, and malfunction reports in accordance with 40 CFR §63.10(d)(5) and §63.1659(a)(4)	40 CFR §63.10(d)(5) & §63.1659(a)(4)
I I I 1	This operation is subject to the applicable requirements of 40 CFR Part 63 Subpart XXX, "National Emission Standards for Hazardous Air Pollutants for Ferroalloy Production: Ferromanganese and Silicomanganese" to include the recordkeeping requirements in §63.1660(a) and §63.1660(b)(1(ii,v,vi,vii),2)	40 CFR §63.1660(a) & §63.1660(b)(1(ii,v,vi,vii ),2)
\ 1 0	The facility shall maintain a record of all inspections, to include visible observations, performed to satisfy the requirements of periodic monitoring. This shall include all problems observed and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-1605(c)
7	The facility shall report any Method 9's on the furnace baghouse with a six minute average opacity over 20%. Such reports shall be made within 48 hrs of such observations.	Rule 335-3-1605(c)
ē	The Permittee shall maintain records of the sulfur content from each load received of coke utilized in the Submerged Arc Furnaces. The Permittee may use vendor test data or shipment certifications to verify the sulfur content in the coke.	Rule 335-3-1404 (Anti-PSD)
i <i>A</i> f t	On completion of construction of the device for which this permit is issued, notification of the fact is to be given to the Chief of the Air Division. Authorization to operate the unit must be received from the Chief of the Air Division. Failure to notify the Chief of the Air Division of construction and/or operation without authorization could result in revocation of this permit.	Rule 335-3-1605(c)

# Summary Page for 20 MW Submerged Arc Furnace No. 2 & Associated Tapping Operation w/ & Baghouse #2 (Ferromanganese and Silicomanganese)

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission Point #	Description	Pollutant	Emission limit	Regulation
"				
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	PM	21.7 lbs/hr ferromanganese Or 27.2 lbs/hr silicomanganese	40 CFR §63.1652(b)(1) & §63.1652(b)(4)
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	PM	The Greater of 0.51 lb/MW or Process Weight (see general provisos for process weight)	Rule 335-3-404 §60.262(a)(2) Rule 335-3-10- .01(2)
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	СО	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	$NO_x$	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	$\mathrm{SO}_2$	Coke - 0.75% Sulfur by weight	Rule 335-3-14- .04 (Anti-PSD)
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	VOC	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	HAPs	N/A	N/A
EP002	20 MW Submerged Electric Arc Furnace and Associated Tapping Operation with Baghouse #2 (Baghouse #2 is EP002)	Opacity	20% for more than one six minute average	40 CFR §63.1653

# Provisos for 20 MW Submerged Arc Furnace No. 2 & Associated Tapping Operation w/ Baghouse #2 (Ferromanganese and Silicomanganese)

Fe	derally Enforceable Provisos	Regulations
Ap	plicability	
1.	This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-1603, "Major Source Operating Permits."	Rule 335-3-1603
2.	This source is subject to the applicable requirements in 40 CFR 63 Subpart XXX, "National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese".	40 CFR 63 Subpart XXX
3.	This unit is subject to the emission standard in §60.262(a)(2).	§60.262(a)(2)
		Rule 335-3-1001(2)
En	nission Standards	
1.	Particulate matter emissions from this unit shall not exceed: 9.8 kg/hr (21.7 lbs/hr) when producing ferromanganese in an open furnace operating at a furnace power input of 22 MW or less	40 CFR §63.1652(b)(1) & §63.1652(b)(4)
	Or	
	12.3 kg/hr (27.2 lbs/hr) when producing silicomanganese in an open furnace operating at a furnace power input of 25 MW or less	
2.	The Permittee shall not cause emissions exiting from a shop due solely to operations of any affected submerged arc furnace, to exceed 20 percent opacity for more than one 6-minute period during any performance test, except when blowing taps, poling, and oxygen lancing of the tap hole; burndowns associated with electrode measurements; and maintenance activities associated with submerged arc furnaces and casting operations are exempt from the opacity standards specified in this section.	40 CFR §63.1653
3.	The sulfur content of the coke utilized in the Submerged Arc Furnace shall not exceed 0.75% by weight.	Rule 335-3-1404 (Anti-PSD)
4.	Particulate matter emissions from this unit shall not exceed the greater of 0.51 lb per Megawatt-hr or the allowable as set by Rule 335-3-404.	Rule 335-3-1001(2) §60.262(a)(2) Rule 335-3-404

Federally Enforceable Provisos	Regulations
Compliance and Performance Test Methods and Procedures	
1. Method 5D of 40 CFR (Latest Edition) Part 60, Appendix A, or an alternative method as approved by the Department shall be used in the determination of particulate matter emissions.	Rule 335-3-104
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.	Rule 335-3-104
Emission Monitoring	
1. The Permittee must observe on a daily basis for the presence of any visible emissions and conduct the following activities:	40 CFR §63.1657(a)(1) & §63.1657(a)(2)
(a) Daily monitoring of pressure drop across each baghouse cell, or across the baghouse if it is not possible to monitor each cell individually, to ensure the pressure drop is within the normal operating range identified in the baghouse maintenance plan.	
(b) Weekly confirmation that dust is being removed from hoppers through visual inspection, or equivalent means of ensuring the proper functioning of removal mechanisms.	
(c) Daily check of the compressed air supply for pulse-jet baghouses.	
(d) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.	
(e) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means.	
(f) Quarterly visual check of bag tension on reverse air and shaker-type baghouses to ensure that the bags are not kinked (kneed or bent) or laying on their sides. Such checks are not required for shaker-type baghouses using self-tensioning (spring loaded) devices.	
(g) Quarterly confirmation of the physical integrity of the baghouse structure through visual inspection of the baghouse interior for air leaks.	
(h) Semiannual inspection of fans for wear, material buildup, and corrosion through visual inspection, vibration detectors, or equivalent means.	
2. The Permittee must develop and implement corrective action procedures (as part of the maintenance plan required by 40 CFR §63.1655(b)) to be followed in the case of an observation of visible emissions from the baghouse or the indication through periodic baghouse system inspections that the system is not operating properly. The owner or operator must initiate corrective action as	§63.1657(a)(4)-(6)

Fe	derally Enforceable Provisos	Regulations
	soon as practicable after the occurrence of the observation or event indicating a problem.	
3.	The Permittee must comply with one of the following monitoring options:	40 CFR §63.1657(c)
	(a) The owner or operator must check and record the control system fan motor amperes and capture system damper positions once per shift.	
	(b) The owner or operator must install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood.	
	(c) The owner or operator must install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the inlet of the air pollution control device and must check and record the capture system damper positions once per shift	
	The selected option must be consistent with that selected during the initial performance test. Failure to maintain the appropriate capture system parameters (fan motor amperes, flow rate, and/or damper positions) establishes the need to initiate correction action as soon as practicable after the monitoring excursion in order to minimize excess emissions.	
4.	The Permittee must prepare and implement a fugitive dust control plan according to 40 CFR 63.1654(a).	40 CFR §63.1654(a)
5.	The Permittee must develop and implement a written maintenance plan for each air pollution control device associated with the submerged arc furnace according to 40 CFR 63.1655(b) & (c).	40 CFR §63.1655(b) & §63.1655(c)
6.	The facility shall perform a visual check, once per week, of the baghouse stack associated with this unit. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and are not corrected within a period of 1 hour, then a Method 9 must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	Rule 335-3-1605(c)
7.	The facility shall perform a weekly visual check of the furnace building. This shall be performed by a person familiar with Method 9. If visible emissions in excess of 15% opacity are noted, and are not corrected within a period of 1 hour, then a Method 9 must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.	Rule 335-3-1605(c)
8.	The facility shall perform a daily inspection of the furnace building to verify proper operation of the furnace baghouse.	Rule 335-3-1605(c)

Fe	ederally Enforceable Provisos	Regulations
	The following activities shall be performed:	
	(a) Once per day check the furnace and tap hoods for fugitive emissions.	
	(b) Record any repairs or observed problems.	
Re	cordkeeping and Reporting Requirements	
1.	This operation is subject to the applicable requirements of 40 CFR Part 63 Subpart XXX, "National Emission Standards for Hazardous Air Pollutants for Ferroalloy Production: Ferromanganese and Silicomanganese" to include the reporting requirements in §63.1659(a) and §63.1659(b)(1,3,4,6(ii)).	40 CFR §63.1659(a) & §63.1659(b)(1,3,4,6(ii))
2.	The Permittee shall comply with all reporting requirement under 40 CFR §63.10 of Subpart A.	40 CFR §63.1659(a)
3.	The Permittee shall submit semiannual monitoring reports in accordance with 40 CFR §63.1659(b).	40 CFR §63.1659(b)
4.	The Permittee shall submit periodic startup, shutdown, and malfunction reports in accordance with 40 CFR §63.10(d)(5) and §63.1659(a)(4).	40 CFR §63.10(d)(5) & §63.1659(a)(4)
5.	This operation is subject to the applicable requirements of 40 CFR Part 63 Subpart XXX, "National Emission Standards for Hazardous Air Pollutants for Ferroalloy Production: Ferromanganese and Silicomanganese" to include the recordkeeping requirements in §63.1660(a) and §63.1660(b)(1(ii,v,vi,vii),2).	40 CFR §63.1660(a) & §63.1660(b)(1(ii,v,vi,vii ),2)
6.	The facility shall maintain a record of all inspections, to include visible observations, performed to satisfy the requirements of periodic monitoring. This shall include all problems observed and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-1605(c)
7.	The facility shall report any Method 9's on the furnace baghouse with a six minute average opacity over 20%. Such reports shall be made within 48 hrs of such observations.	Rule 335-3-1605(c)
8.	The Permittee shall maintain records of the sulfur content from each load received of coke utilized in the Submerged Arc Furnaces. The Permittee may use vendor test data or shipment certifications to verify the sulfur content in the coke.	Rule 335-3-1404 (Anti-PSD)
9.	On completion of construction of the device for which this permit is issued, notification of the fact is to be given to the Chief of the Air Division. Authorization to operate the unit must be received from the Chief of the Air Division. Failure to notify the Chief of the Air Division of construction and/or operation without authorization could result in revocation of this permit.	Rule 335-3-1605(c)

# Summary Page for Product Handling, Crushing and Screening w/ Baghouse 3 & 4 (Ferromanganese and Silicomanganese)

Permitted

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP003	Jaw Crusher and Cone Crusher with Baghouse #3	PM	69 mg/dscm (0.03 gr/dscf)	40 CFR §63.1652(e)(2)
EP003	Jaw Crusher and Cone Crusher with Baghouse #3	PM	Process Weight (see general proviso 31)	Rule 335-3-404
EP003	Jaw Crusher and Cone Crusher with Baghouse #3	Opacity	(see general proviso 29)	Rule 335-3-401
EP004	Product Shakers & Screens, & Product Conveyors with Baghouse #4	PM	69 mg/dscm (0.03 gr/dscf)	40 CFR §63.1652(e)(2)
EP004	Product Shakers & Screens, & Product Conveyors with Baghouse #4	PM	Process Weight (see general proviso 31)	Rule 335-3-404
EP004	Product Shakers & Screens, & Product Conveyors with Baghouse #4	Opacity	(see general proviso 29)	Rule 335-3-401

### Provisos for Product Handling, Crushing and Screening w/ Baghouse 3 & 4 (Ferromanganese and Silicomanganese)

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-1603, "Major Source Operating Permits."	Rule 335-3-1603
2. This source is subject to the applicable requirements in 40 CFR 63 Subpart XXX, "National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese".	40 CFR 63 Subpart XXX
Emission Standards	
<ol> <li>Particulate matter emissions from this unit shall not exceed 69 mg/dscm (0.03 gr/dscf).</li> </ol>	40 CFR §63.1652(e)(2)
Compliance and Performance Test Methods and Procedures	
1. Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate matter emissions or an alternative method as approved by the Department.	Rule 335-3-104
2. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.	Rule 335-3-104
Emission Monitoring	
1. The facility must observe on a daily basis for the presence of any visible emissions and conduct the following activities:	40 CFR §63.1657(a)(1) & §63.1657(a)(2)
(a) Daily monitoring of pressure drop across each baghouse cell, or across the baghouse if it is not possible to monitor each cell individually, to ensure the pressure drop is within the normal operating range identified in the baghouse maintenance plan.	
(b) Weekly confirmation that dust is being removed from hoppers through visual inspection, or equivalent means of ensuring the proper functioning of removal mechanisms.	
(c) Daily check of the compressed air supply for pulse-jet baghouses.	
(d) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.	
(e) Monthly check of bag cleaning mechanisms for proper	

Fe	der	ally Enforceable Provisos	Regulations
		functioning through visual inspection or equivalent means.	
	(f)	Quarterly visual check of bag tension on reverse air and shaker-type baghouses to ensure that the bags are not kinked (kneed or bent) or laying on their sides. Such checks are not required for shaker-type baghouses using self-tensioning (spring loaded) devices.	
	(g)	Quarterly confirmation of the physical integrity of the baghouse structure through visual inspection of the baghouse interior for air leaks	
	(h)	Semiannual inspection of fans for wear, material buildup, and corrosion through visual inspection, vibration detectors, or equivalent means.	
2.	pro CF obs ind ins ow: pra	e Permittee must develop and implement corrective action ocedures (as part of the maintenance plan required by 40 R §63.1655(b)) to be followed in the case of an servation of visible emissions from the baghouse or the lication through the periodic baghouse system pections that the system is not operating properly. The ner or operator must initiate corrective action as soon as acticable after the occurrence of the observation or event licating a problem.	_ ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` ` `
3.		e Permittee must prepare and implement a fugitive dust atrol plan according to 40 CFR 63.1654(a).	40 CFR §63.1654(a)
4.	ma ass	e Permittee must develop and implement a written intenance plan for each air pollution control device sociated with the crushing and screening operations cording to 40 CFR 63.1655(b) & (c).	40 CFR §63.1655(b) & §63.1655(c)
5.		e facility shall perform a visual check, once per week, of	Rule 335-3-1605(c)

5. The facility shall perform a visual check, once per week, of the baghouse stacks associated with these units. This check shall be performed by a person familiar with Method 9. If visible emissions in excess of 10% opacity are noted, and are not corrected within a period of 1 hour, then a Method 9 must be performed within 4 hours of the observations. Maintenance shall be performed as needed. Any repairs or observed problems shall be recorded.

Recordkeeping and Reporting Requirements

- 1. This operation is subject to the applicable requirements of 40 CFR Part 63 Subpart XXX, "National Emission Standards for Hazardous Air Pollutants for Ferroalloy Production: Ferromanganese and Silicomanganese" to include the reporting requirements in §63.1659(a) and §63.1659(b)(1,3,4,6(ii)).
- 2. The Permittee shall comply with all reporting requirements under 40 CFR §63.10 of Subpart A.

40 CFR §63.1659(a) & §63.1659(b)(1,3,4,6(ii))

40 CFR §63.1659(a)

Fe	derally Enforceable Provisos	Regulations
3.	The Permittee shall submit semiannual monitoring reports in accordance with 40 CFR §63.1659(b).	40 CFR §63.1659(b)
4.	The Permittee shall submit periodic startup, shutdown, and malfunction reports in accordance with 40 CFR §63.10(d)(5) & §63.1659(a)(4)	40 CFR §63.10(d)(5) & §63.1659(a)(5)
5.	This operation is subject to the applicable requirements of 40 CFR Part 63 Subpart XXX, "National Emission Standards for Hazardous Air Pollutants for Ferroalloy Production: Ferromanganese and Silicomanganese" to include the recordkeeping requirements in §63.1660(a) and §63.1660(b)(1(ii,v,vi,vii),2).	40 CFR \$63.1660(a) & \$63.1660(b)(1(ii,v,vi,vii), 2)
6.	The facility shall maintain a record of all inspections, to include visible observations and Method 9's, performed to satisfy the requirements of periodic monitoring. This shall include all problems observed, excursions, and corrective actions taken. Each record shall be maintained for a period of 5 years.	Rule 335-3-1605(c)
7.	The facility shall report any Method 9's with an average opacity over 20%. Such reports shall be made within 48 hrs of such observations.	Rule 335-3-1605(c)
8.	On completion of construction of the device for which this permit is issued, notification of the fact is to be given to the Chief of the Air Division. Authorization to operate the unit must be received from the Chief of the Air Division. Failure to notify the Chief of the Air Division of construction and/or operation without authorization could result in revocation of this permit.	Rule 335-3-1605(c)

## **Summary Page for Product Handling**

Permitted

**Operating Schedule:** 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission Point #	Description	Pollutant	Emission limit	Regulation
F008	Fugitives from the Storage Bin Loading, Microsilica Bagging, and Rail Car Loading	PM	N/A	N/A

# **Provisos for Product Handling**

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-1603, "Major Source Operating Permits."	Rule 335-3-1603
Emission Standards	
1. This Source is subject to no additional specific requirements other than those listed in the General Permit Provisos.	N/A
Compliance and Performance Test Methods and Procedures	
1. This Source is subject to no additional specific requirements other than those listed in the General Permit Provisos.	N/A
Emission Monitoring	
1. This Source is subject to no additional specific requirements other than those listed in the General Permit Provisos.	N/A
Recordkeeping and Reporting Requirements	
1. This Source is subject to no additional specific requirements other than those listed in the General Permit Provisos.	N/A

### Summary Page for NSPS Subpart IIII – Compression Ignition Emergency Generator

**Permitted** 

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP05	Diesel Fired Compression Ignition Emergency Generator	PM	See Table 1 or Table 4 in 40 CFR Part 60 Subpart IIII	40 CFR Part 60 Subpart IIII
		$SO_2$	N/A	N/A
		NOx	See Table 1 or Table 4 in 40 CFR Part 60 Subpart IIII	40 CFR Part 60 Subpart IIII
		CO	See Table 1 or Table 4 in 40 CFR Part 60 Subpart IIII	40 CFR Part 60 Subpart IIII
		VOC	N/A	N/A
		Opacity	See General Provisos	Rule 335-3-401(1)

## Provisos for NSPS Subpart IIII – Compression Ignition Emergency Generator

Fede	rally Enforceable Provisos	Regulations
Appli	cability	
1.	This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-1603, "Major Source Operating Permits".	Rule 335-3-1603
2.	Emergency Generator EP05 must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart IIII, for compression ignition engines.	40 CFR §63.6590(c)(6)
3.	This source is subject to the applicable requirements of 40 CFR Part 60 Subpart IIII, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines".	40 CFR Part 60 Subpart IIII
4.	This source is subject to the applicable requirements of Subpart A of 40 CFR Part 60, "General Provisions" as listed in Table 8 of Subpart IIII.	40 CFR Part 60 Subpart IIII
Emis	sion Standards	
1.	This unit is subject to the applicable emission standards listed in Table 1 to 40 CFR Part 60 Subpart IIII and 40 CFR §60.4202(a)(2).	40 CFR §60.4205(a) & §60.4205(b)
2.	This unit must be certified according to 40 CFR Part 60 Subpart IIII for the same model year and maximum engine power.	40 CFR §60.4205(b)
3.	This unit must be installed and configured according to the manufacturer's specifications.	40 CFR §60.4211(a) & §60.4211(b)
4.	The facility must operate and maintain this unit according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.	40 CFR §60.4206
5.	These units must use diesel fuel that meets the requirements of 40 CFR §80.510(b).	40 CFR §60.4207(b)
6.	The Permittee must install a non-resettable hour meter prior to startup of the engine.	40 CFR §60.4209(a)
7.	This unit may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of this unit is limited to 100 hours per year. There is no time limit on the use of these units in	40 CFR §60.4211(f)

emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. This unit may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for nonemergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in 40 CFR 60 Subpart IIII, is prohibited.

#### Compliance and Performance Test Methods and Procedures

- 1. Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.
- Rule 335-3-1-.05
- 2. Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate emissions.
- Rule 335-3-1-.05
- 3. Method 10 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of CO emissions.
- Rule 335-3-1-.05
- 4. Method 7 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of NO<sub>x</sub> emissions.
- Rule 335-3-1-.05

#### **Emission Monitoring**

1. This source is subject to no additional specific requirements other than those listed in the General Provisos.

#### N/A

#### Recordkeeping and Reporting Requirements

1. This source is subject to no additional specific requirements other than those listed in the General Provisos.

#### N/A

# Summary Page for MACT Subpart ZZZZ – Existing Emergency Generator

**Permitted** 

Operating Schedule: 24 Hrs/day x 7 Days/week x 52 Weeks/yr = 8760 Hrs/yr

Emission Point #	Description	Pollutant	Emission limit	Regulation
EP06	Existing Emergency Generator (Subject to only Subpart ZZZZ)	PM	N/A	N/A
		SO <sub>2</sub>	N/A	N/A
		NO <sub>X</sub>	N/A	N/A
		СО	N/A	N/A
		VOC	N/A	N/A
		Opacity	See General Provisos	Rule 335-3-401(1)

## Provisos for MACT Subpart ZZZZ – Existing Emergency Generator

Fede	erally Enforceable Provisos	Regulations
Appl	icability	
1.	This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-1603, "Major Source Operating Permits".	Rule 335-3-1603
2.	This source is subject to the applicable requirements of 40 CFR Part 63 Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE)".	40 CFR Part 63 Subpart ZZZZ
3.	This source is subject to the applicable requirements of Subpart A of 40 CFR Part 63, "General Provisions" as listed in Table 8 of Subpart ZZZZ.	40 CFR Part 63 Subpart ZZZZ
Emis	ssion Standards	
1.	This unit is subject to the applicable requirements listed in Table 2c of 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.	40 CFR §63.6602
2.	The Permittee must operate and maintain this unit according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.	40 CFR §63.6625(e)(2)
3.	The Permittee must install a non-resettable hour meter for each unit if one is not already installed.	40 CFR §63.6625(f)
4.	This unit may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of these units are limited to 100 hours per year. There is no time limit on the use of this unit in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. This unit may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for	

Fed	erally Enforceable Provisos	Regulations
	maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in 40 CFR 63 Subpart ZZZZ, is prohibited.	
Com	pliance and Performance Test Methods and Procedures	
1.	Method 9 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of the opacity.	Rule 335-3-105
2.	Method 5 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of particulate emissions.	Rule 335-3-105
3.	Method 10 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of CO emissions.	Rule 335-3-105
4.	Method 7 of 40 CFR (Latest Edition) Part 60, Appendix A shall be used in the determination of $NO_x$ emissions.	Rule 335-3-105
Emis	ssion Monitoring	
1.	<ul><li>The Permittee shall perform the following activities:</li><li>(a) Change oil and filter every 500 hours of operation or annually, whichever comes first;</li><li>(b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;</li><li>(c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.</li></ul>	40 CFR Part 63 Subpart ZZZZ Table 2c(1) & Table 2c(6) & §63.6625(i) & (j)
	Or utilize an oil analysis program as described in §63.6625(i) or §63.6625(j).	
2.	If an oil analysis program is utilized for a stationary compression ignition engine, the Permittee must perform the oil analysis at the same frequency specified above for changing the oil. The Permittee must at a minimum analyze the following parameters: Total Base Number, viscosity, and	40 CFR Subpart ZZZZ §63.6625(i)

2. If an oil analysis program is utilized for a stationary compression ignition engine, the Permittee must perform the oil analysis at the same frequency specified above for changing the oil. The Permittee must at a minimum analyze the following parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new, viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new, or percent water content (by volume) is greater than 0.5. If any of the limits are exceed, the Permittee must change the oil within 2 business days of receiving the results of the analysis or before commencing operation, whichever is later.

Fede	rally Enforceable Provisos	Regulations
3.	If an oil analysis program is utilized for a stationary spark ignition engine, the Permittee must perform the oil analysis at the same frequency specified above for changing the oil. The Permittee must at a minimum analyze the following parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligram of potassium hydroxide (KOH) per gram from the Total Acid Number of the oil when new, viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new, or percent water content (by volume) is greater than 0.5. If any of the limits are exceed, the Permittee must change the oil within 2 business days of receiving the results of the analysis or before commencing operation, whichever is later.	40 CFR Subpart ZZZZ §63.6625(j)
Reco	rdkeeping and Reporting Requirements	
1.	The Permittee must keep records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.	40 CFR Subpart ZZZZ §63.6625(i) & (j)
2.	The Permittee must keep records of the maintenance conducted on this unit in order to demonstrate that you operated and maintained these units and after-treatment control device (if any) according to your own maintenance plan.	40 CFR §63.6655(e)
3.	The Permittee must keep records of the hours of operation of each engine that is recorded through the non-resettable hour meter. The facility must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.	40 CFR §63.6655(f)

### **APPENDIX CAM**

**Compliance Assurance Monitoring Requirements** 

# CAM Plan for 20 MW EAF No. 1 and Associated Tapping Operation with Baghouse No. 1 (Silicon Metal)

	Indicator 1	Indicator 2	Indicator 3
I. Measurement Approach	Trained and qualified personnel will do a visible inspection.	Measured using a pressure gauge.	Measured using a temperature gauge.
II. Indicator Range	While the unit is operating, an excursion is defined as the presence of visible emissions greater than 10% opacity. Excursions trigger an inspection, corrective action, and a reporting requirement. If an excursion is noted and not corrected within a period of (1) one hour, then a method 9 must be performed within (4) four hours of the observation.	While the unit is operating, an excursion is defined as a pressure differential below 3.0 inches of H <sub>2</sub> O or greater than 16.0 inches of H <sub>2</sub> O. Excursions trigger an inspection, corrective action, and a reporting requirement.	While the unit is operating, an excursion is defined as a temperature that is above 525 °F. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria			
1. Data Representativeness	Measurement is being made at the emission point (baghouse exhaust).	The pressure differential is being measured between the inlet and outlet of the baghouse.	The temperature is being measured at the inlet to the baghouse.
2. Verification of Operation Status	Not Applicable	Not Applicable	Not Applicable
3. QA/QC Practices and Criteria	Qualified personnel will perform the visible inspection.	The pressure gauge will be calibrated and maintained per the manufacturer's recommendation or at least annually, which ever is more frequent.	The temperature gauge will be calibrated and maintained per the manufacturer's recommendation or at least annually, which ever is more frequent.
4. Monitoring Frequency	The visible inspection will be performed daily.	The pressure drop will be monitored continuously.	The temperature will be monitored continuously.
5. Data Collection Procedures	The visible inspection will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, and date by an acquisition handling system.	The temperature will be recorded with the time and date by a data acquisition handling system.
6. Averaging Period	Instantaneous	Nine (9) Minute Average	Nine (9) Minute Average

# CAM Plan for 20 MW EAF No. 2 and Associated Tapping Operation with Baghouse No. 2 (Silicon Metal)

	Indicator 1	Indicator 2	Indicator 3
I. Measurement Approach	Trained and qualified personnel will do a visible inspection.	Measured using a pressure gauge.	Measured using a temperature gauge.
II. Indicator Range	While the unit is operating, an excursion is defined as the presence of visible emissions greater than 10% opacity. Excursions trigger an inspection, corrective action, and a reporting requirement. If an excursion is noted and not corrected within a period of (1) one hour, then a method 9 must be performed within (4) four hours of the observation.	While the unit is operating, an excursion is defined as a pressure differential below 3.0 inches of H <sub>2</sub> O or greater than 16.0 inches of H <sub>2</sub> O. Excursions trigger an inspection, corrective action, and a reporting requirement.	While the unit is operating, an excursion is defined as a temperature that is above 525 °F. Excursions trigger an inspection, corrective action, and a reporting requirement.
III. Performance Criteria			
1. Data Representativeness	Measurement is being made at the emission point (baghouse exhaust).	The pressure differential is being measured between the inlet and outlet of the baghouse.	The temperature is being measured at the inlet to the baghouse.
2. Verification of Operation Status	Not Applicable	Not Applicable	Not Applicable
3. QA/QC Practices and Criteria	Qualified personnel will perform the visible inspection.	The pressure gauge will be calibrated and maintained per the manufacturer's recommendation or at least annually, which ever is more frequent.	The temperature gauge will be calibrated and maintained per the manufacturer's recommendation or at least annually, which ever is more frequent.
4. Monitoring Frequency	The visible inspection will be performed daily.	The pressure drop will be monitored continuously.	The temperature will be monitored continuously.
5. Data Collection Procedures	The visible inspection will be recorded with the time, date, and name of the observer.	The pressure differential will be recorded with the time, and date by an acquisition handling system.	The temperature will be recorded with the time and date by a data acquisition handling system.

6. Averaging Period	Instantaneous	Nine (9) Minute Average	Nine (9) Minute Average